Eashan Gandotra

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Experience

- **Chicago Trading Company** — Chicago, IL
  Quantitative Researcher — *October 2024 - Present*
  - Build and maintain production numerical models in C++, optimizing for computational performance and stability
  - Develop automated model calibration pipelines in Python using optimization and curve-fitting algorithms
  - Design predictive models using time series analysis, statistical learning, and feature engineering
  - Implement data pipelines and monitoring frameworks to track model performance in production
- **Chicago Trading Company** — Chicago, IL
  Quant Trading Analyst — *August 2023 - October 2024*
  - Developed optimization algorithms for combinatorial matching problems
  - Completed internal coursework in statistics, data science, and predictive modeling
- **Chicago Trading Company** — Chicago, IL
  Quant Trading Analyst Intern — *May 2022 - August 2022*
  - Built Python application for modeling correlation dynamics between related financial instruments
  - Won company hackathon award for developing neural network models to identify predictive signals in sports data
- **McKesson Corporation** — Remote
  Automation Engineer Intern — *May 2021 - August 2021*
  - Built CI/CD pipelines and automation tools using Jenkins, Bash, and PowerShell

Education

- **Georgia Institute of Technology** — Atlanta, GA
  B.S. in Mathematics, Minor in Computing and Intelligence — *August 2019 - May 2023*
  ***GPA:** 3.96, Dean's List all semesters*
- **Budapest Semesters in Mathematics** — Budapest, Hungary
  Research-oriented coursework in game theory, combinatorics, and geometry — *Spring 2022*

Projects & Writing

- **Physics-Informed Neural Networks for PDEs**: Implementing PINNs to solve diffusion equations, validated against custom finite difference solver. Exploring transfer learning from options pricing to the heat equation. github.com/eashang1/pinn-diffusion-pde
- **Mathematical Writing**: Expository papers on statistical learning, Ramanujan's summation, and olympiad inequalities. Available at eashang1.github.io
- **Game AI & Adversarial Agents**: Top 100 (of 50,000+) agents for Terminal competition using tree search, dynamic programming, and heuristic optimization
- **de Bruijn Sequence Card Magic**: Web application for combinatorial card magic using de Bruijn sequences. Advised by Dr. Matt Baker. Demo: eashang1.github.io/a_stuck_wizard

Technical Skills

- **Languages**: Python, C++, SQL
- **ML & Data Science**: PyTorch, scikit-learn, pandas, NumPy, time series analysis, regression, tree-based methods, feature engineering
- **Tools**: Git, Linux, Jenkins, LaTeX
- **Foundations**: Numerical methods, optimization, probability, statistics, linear algebra, algorithms

Honors and Awards

- **William Lowell Putnam Exam**: Top 500 (2020), top 1000 (2019, 2021, 2022) on premier undergraduate mathematics competition
- **ICPC North American Championship**: Competed on Georgia Tech's top undergraduate competitive programming team
- **Competitive Programming**: 500+ problems on Codeforces (peak rating: 1898), 500+ on Art of Problem Solving
- **AIME Qualifier**: Top 2.5% on AMC 12, scored 75th percentile on AIME